

DVD 7937
Blue Jeep

Swans
on PI C
6 09/08/08 4A6

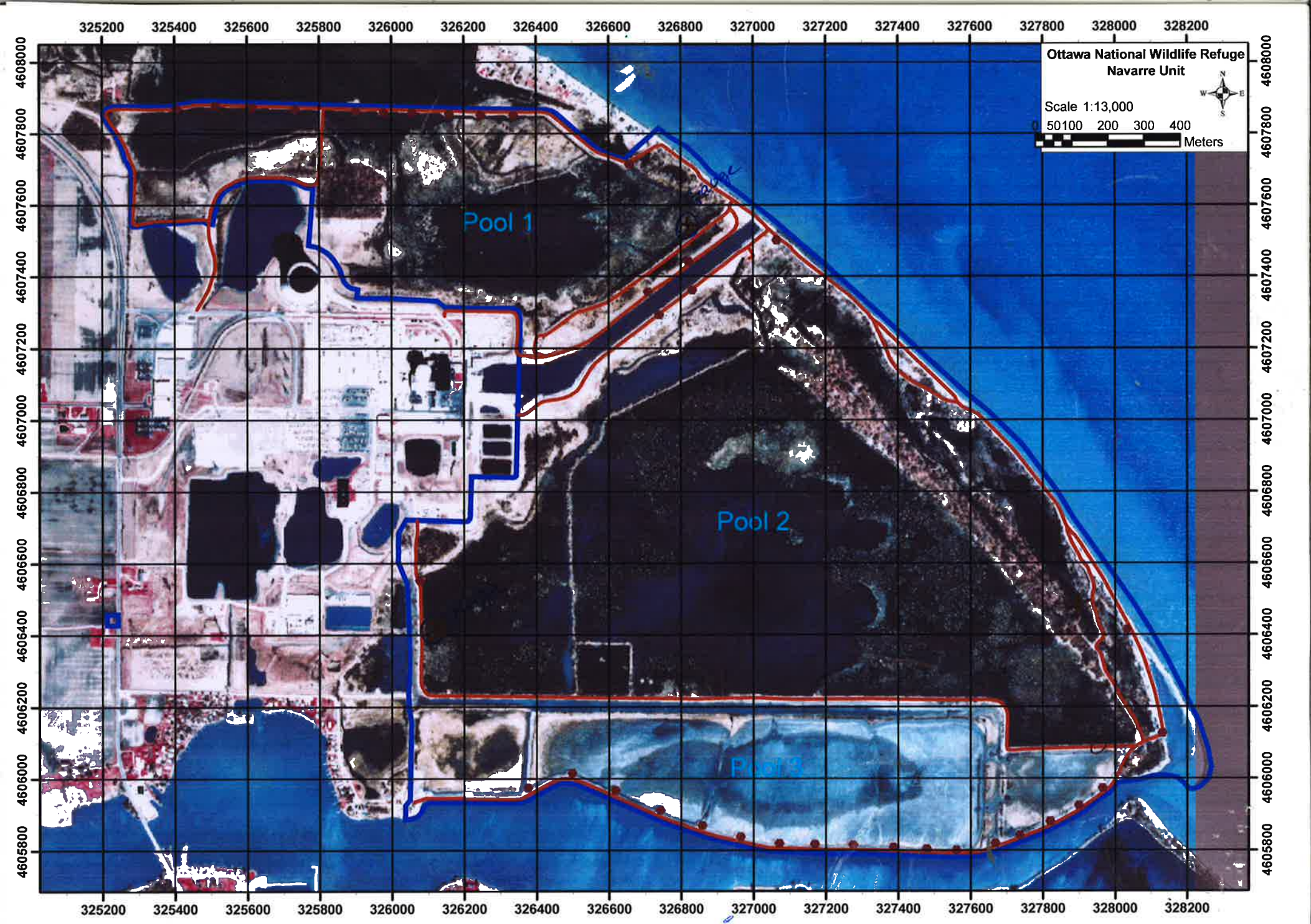
Ottawa National Wildlife Refuge

Water Levels

2008

same





Water Levels

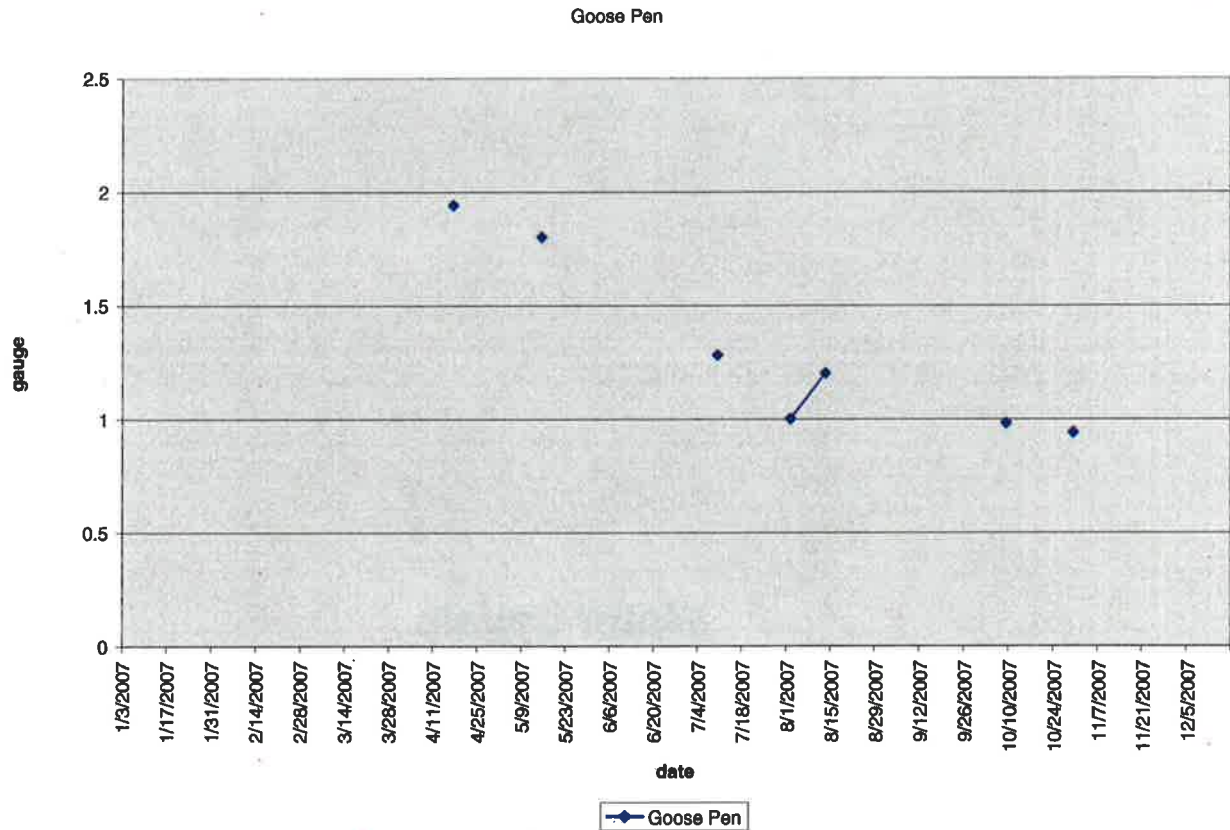
2008

928192K

Unit: Goose Pen

Acres: 57

2007 Activity: No active management.



Unit Goal: Provide foraging and resting habitat for migratory birds.

Objectives: Control exotic flowering rush and purple loosestrife. Encourage more desirable vegetation.

Strategies:

Maintain full pool to set back any P. loosestrife that may have gotten established in 2006.

Management Strategy Constraints:

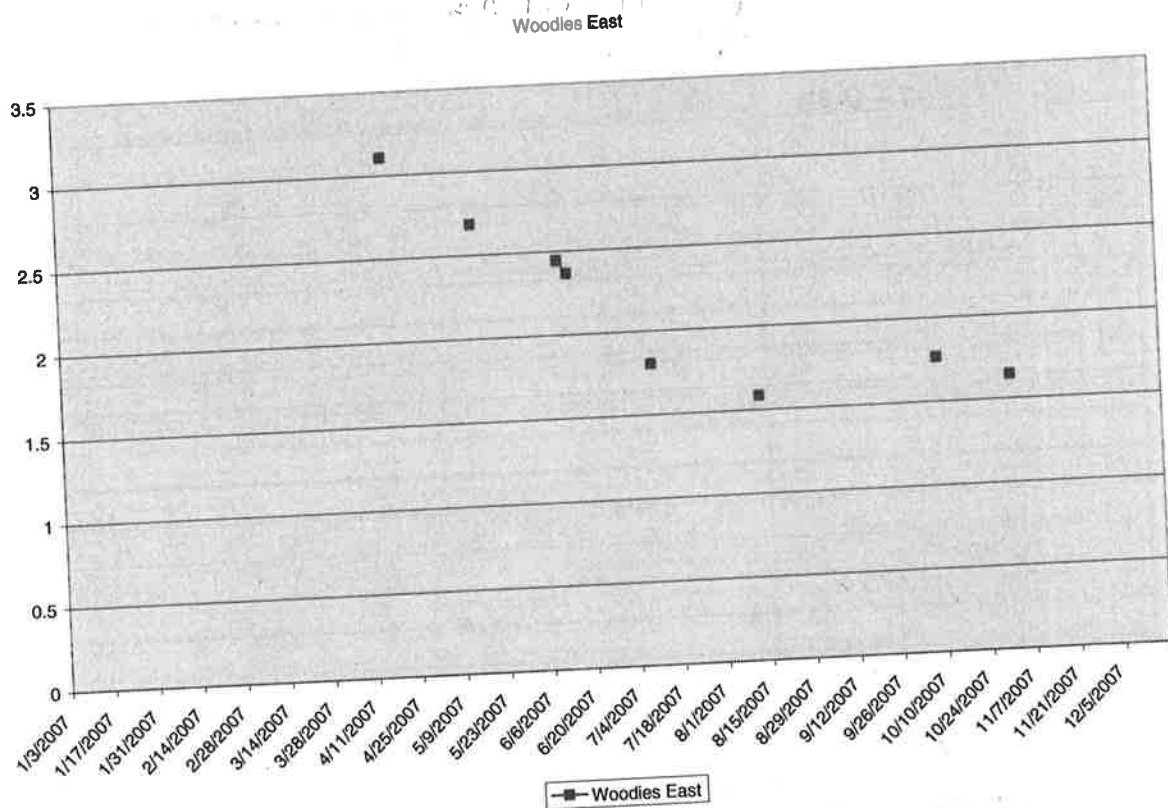
Unit: Goose Pen

Water level guide	2008 Date	Actual Water level	Notes
	Jan. 9	1.76	15 - 1.78
	Feb 6	1.98	Put filled rat hole, leaking H ₂ O into ditch, flooding has
	Feb.		about Full Pool (1 ft free board on East dike - dike bad shape!)
	Mar. 17	2.30	19 - 2.4 (ditch too high to let H ₂ O out.)
	Apr. 14	2.58	H ₂ O opened 1 day 12"
	28	2.36	opened 3"
	May 2	2.0	Closed
	12	2.08	
	June 6	1.90	
	16	1.94	
	July 9	2.58	Opened
	11	2.40	
	14	2.2	
	24	2.3	19 - 1.62 closed.
	Aug.		
	11	2.3	
	Sept.		
	Oct. 14	0.70	
	20	0.70	
	Nov. 6	0.66	
	Dec.		

Unit: Woodies Roost East

Acres:

2007 Activity: High water was passively taken off in the spring (May), and the unit was pumped up in the fall.



Unit Goals: Provide foraging habitat and cover for wading birds and waterfowl.

Objectives: Manage for hemi marsh conditions

Strategies:

Potential Problems: Beaver

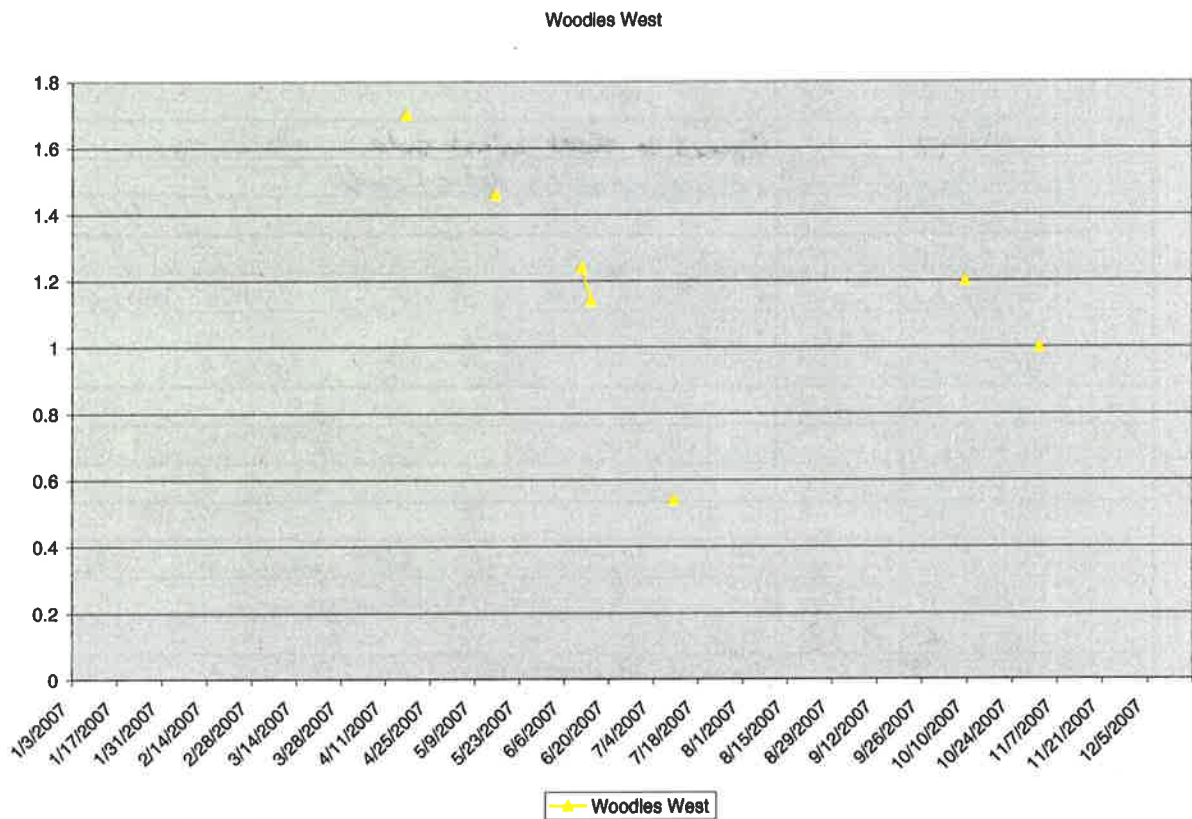
Unit: Woodies Roost East

Water level guide	2008 Date	Actual Water level	Notes
	Jan. 11	8-10" over gauge	Open to let high H ₂ O out (open AM, closed PM)
	15	3.35?	Very high
	Feb. 6		Over gauge? 3/19/08 SM
	Mar. 17		Opened to test We - Spoke w/ Pat + informed him we want to take H ₂ O off when we can the East unit. Their ditches are currently closed. Probably will open next week. Currently the two units are open to each other
	26		Closed gate to the
	Apr. 30		Over gauge At top
	May		
	June 6	2.98	
	16	3.18	lots of green Algae
	27		over the stick
	July 9	>3.3	" "
	15		state pumping down
	Aug.		
	11	2.2	
	Sept. 4	1.58	
	Oct. 20	1.52	
	21		turned Thompson back on. 162 mudflats on walk to blind
	23	1.70	turn Thompson off @ end of day
	Nov. 5	1.78	Pump on again OFF @ 3pm
	9	1.70	11/13- 1.80
	Dec.		

Unit: Woodies Roost West

Acres:

2007 Activity: The unit was pumped up in the fall.



Unit Goals: Provide foraging habitat and cover for wading birds and waterfowl.

Objectives: Manage for hemi marsh conditions

Strategies: Maintain higher H₂O in 2008

Potential Problems: Beaver

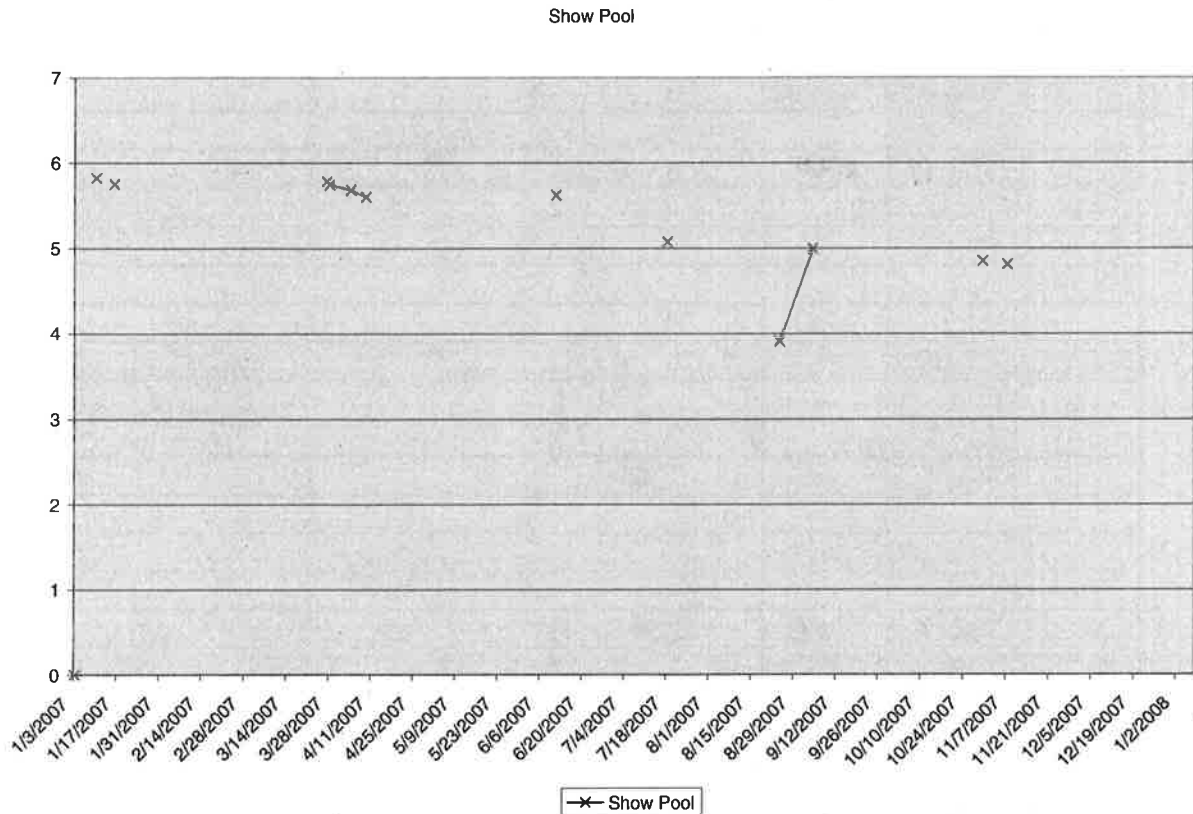
Unit: Woodies Roost West

Water level guide	2008 Date	Actual Water level	Notes
	Jan. 11	1.9	
	15	1.84	
	Feb. 6	2.06	About Full Pool based on divider dike on East side
			3/17 - opened to East side
	Mar. 17	2.20	25-2.60 closed gate
	Apr. 30	2.28	
	May		
	June 6	1.58	
	16	1.54	
	27	1.55	
	July 9	2.20	
	24	2.0	
	Aug.		
	11	1.5	
	Sept. 4	0	
	Oct. 20	1.3	
	Nov. 9	1.16	
	13	1.20	
	Dec.		

Unit: Show Pool

Acres: 41

2007 Activity: Let high water off in spring. Top board was temporarily lifted to let water off faster. Replaced 7" board with 5" board.



Unit Goal: Because of the location of this pool to the office, it has been designated as a “show” pool with the intent that it can provide viewing of waterfowl including other wildlife and be a model wetland. This unit will be managed as a permanent wetland with deeper water to over winter fish and provide public catch and release fishing opportunities.

Objectives: Increase diversity of emergent marsh vegetation and provide deep water for fish habitat.

Strategies: Monitor dikes, woods behind shop, and water depth on higher ground. Treat invasives.

Management Strategy Constraints: East dike and south dike weakest/lowest of unit. Max water level is 5.60.

Unit: **Show Pool**

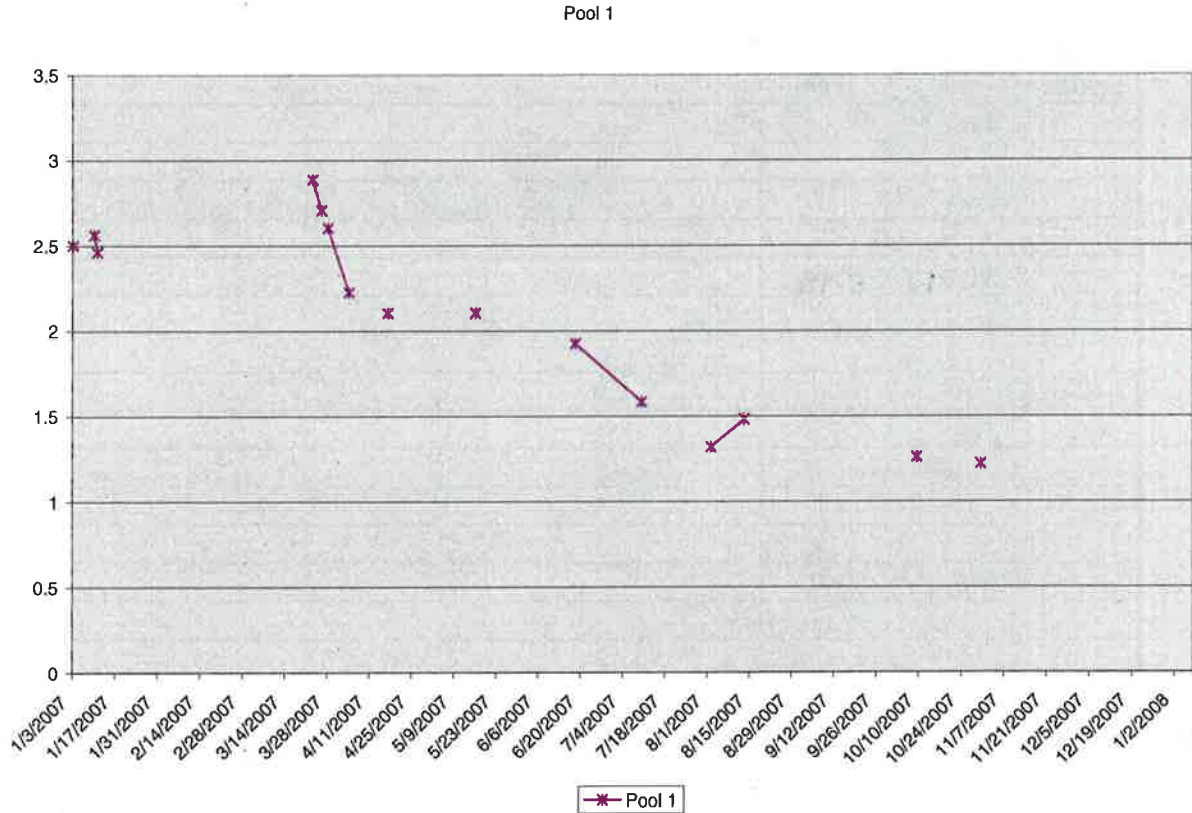
Agridrain 15 3/4" wide. Max water level is 5.60

Water level guide	2008 Date	Actual Water level	Notes
	Jan. 9	5.108	
	Feb. 6	5.96	Very high! lifted + board up Cannot pull extra board - too hard.
	Mar. 17	5.48	
	Apr. 30	5.28	
	May 12	5.28	
	21	5.28	
	June 6	5.16	
	16	5.20	
	21	5.24	
	July 9	5.78	
	14	5.7	
	Aug.		
	11	5.10	
	Sept.		
	Oct. 20	4.48	
	Nov. 6	4.40	
	Dec. 12	4.86	

Unit: Pool 1

Acres: 343

2007 Activity: High water was let out through the NW gate in January and March.



Unit Goal: Provide habitat for nesting common terns, foraging herons, mussel beds, rails, and fish. As well as provide a rest area for waterfowl.

Objectives: The topography of this unit allows for a variety of water level depths. To provide habitat for nesting common terns, fish and mussels, maintain deep (3-4ft) open water areas. Provide emergent and submergent wetlands for wading birds, waterfowl and invertebrates. The higher elevation areas along the south and north parts of the unit will provide flooded grass and sedge areas for rails.

Strategies: Ensure unit is at optimum pool in the spring and allow evapotranspiration to decrease water levels no lower than 0.90 by September.

Management Strategy Constraints:

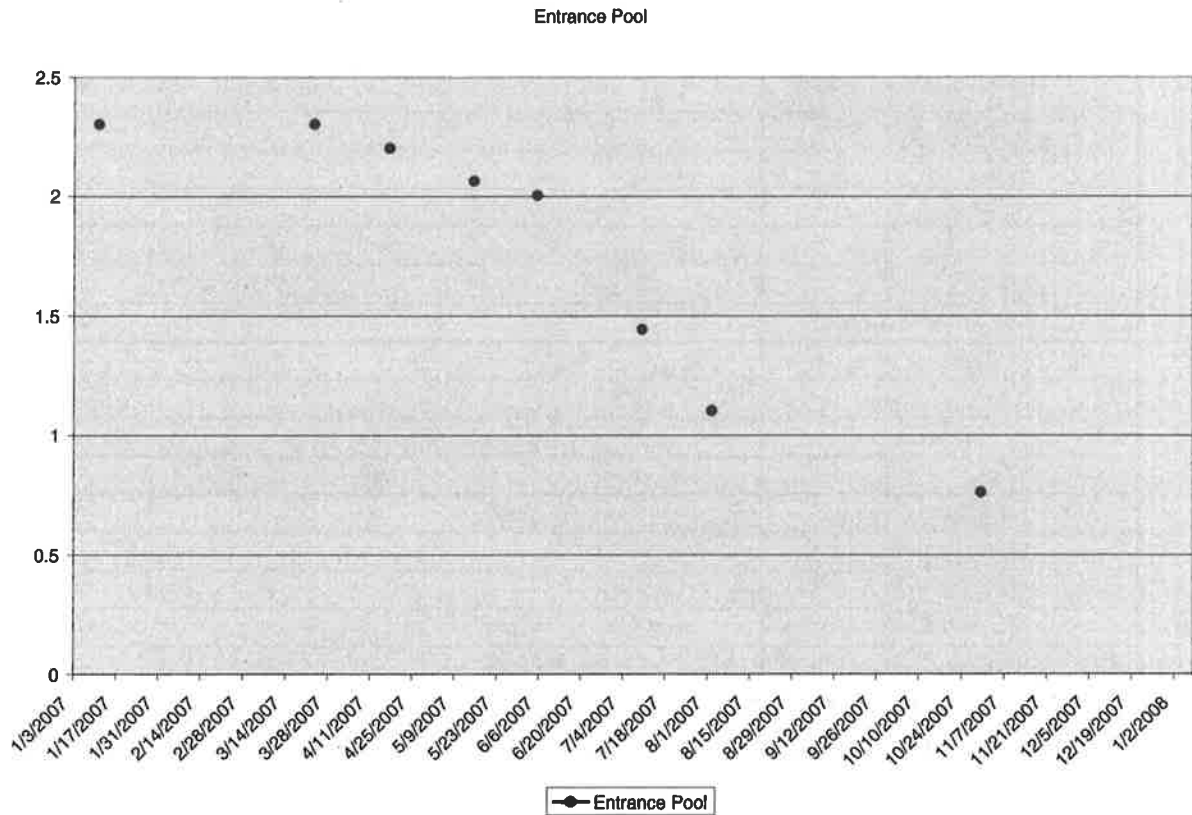
Unit: Pool 1

Water level guide	2008 Date	Actual Water level	Notes
	Jan. 9	1.98	
	15	2.04	
	Feb. 6	2.28	
	Mar.		
	Apr. 30	2.84	Closed to C.C. 6"
	May 6	2.64	Opened to 10-12"
	12	2.40	
	21	2.0	Closed
	June 6	1.92	
	16	1.90	
	27	1.96	
	July 9	2.10	
	Aug.		
	11	2.10	
	Sept. 23	1.68	
	Oct.		
	Nov. 6	1.50	
	Dec. 12	1.86	

Unit: Entrance Pool

Acres: 150

2007 Activity: No active management.



Unit Goal: Provide a diversity of marsh type habitats, ranging from cattail stands to open water. Attract a variety of waterfowl, shorebirds, water birds, and wetland animals to provide opportunities for wildlife viewing. Control exotic invasive species.

Objectives: Provide shallow to deep emergent marsh. Maintain higher water levels to combat purple loosestrife.

Strategies:

Set up Thompson + Pump periodically

Management Strategy Constraints:

Unit: Entrance Pool

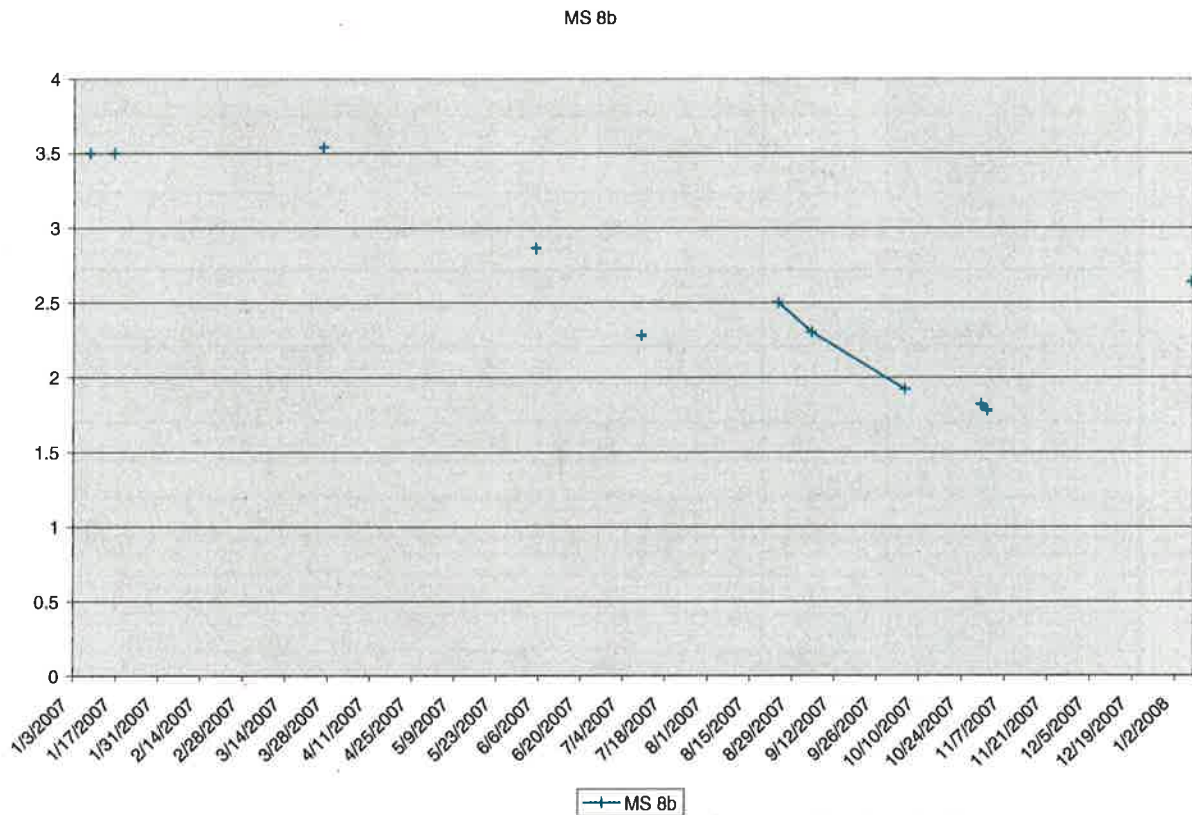
2.0 full pool.

Water level guide	2008 Date	Actual Water level	Notes
	Jan 9	1.98	
	Feb 6	2.34	
	Mar. 19	2.44	
	Apr. 30	2.18	
>1.8	May 12	2.18	
>1.8	June 3	1.98	
	16	2.0	
	27	.98	← (I think this is a mistake, should be "1.98") SM 2/2/09
>1.8	July		
	24	2.5	
>1.8	Aug.		
	11	2.1	
	Sept.		
	Oct.		
	Nov 6	1.28	looks good! lots of geese + a couple mallards/grebes/swans

Unit: MSU 8B

Acres: 100

2007 Activity: Additional high water was let out through the southeast gate in January and spring. In June the gate was found open 2" for an undetermined amount of time and was closed. Pumping was attempted in October, but lake levels were too low.



Unit Goal: Provide resting and foraging habitat for migratory birds.

Objectives: Manage against invasives and allow for more open areas in the marsh.

Strategies: Maintain high water levels in the unit throughout the growing season. This will likely require periodic pumping and active management.

Management Strategy Constraints: Water levels may need to be manipulated to install a pump structure from the Visitor Center ditches into 8b as well as add an agridrain to the south east corner of the unit.

Unit: MS 8b

Full pool 3.40-3.46

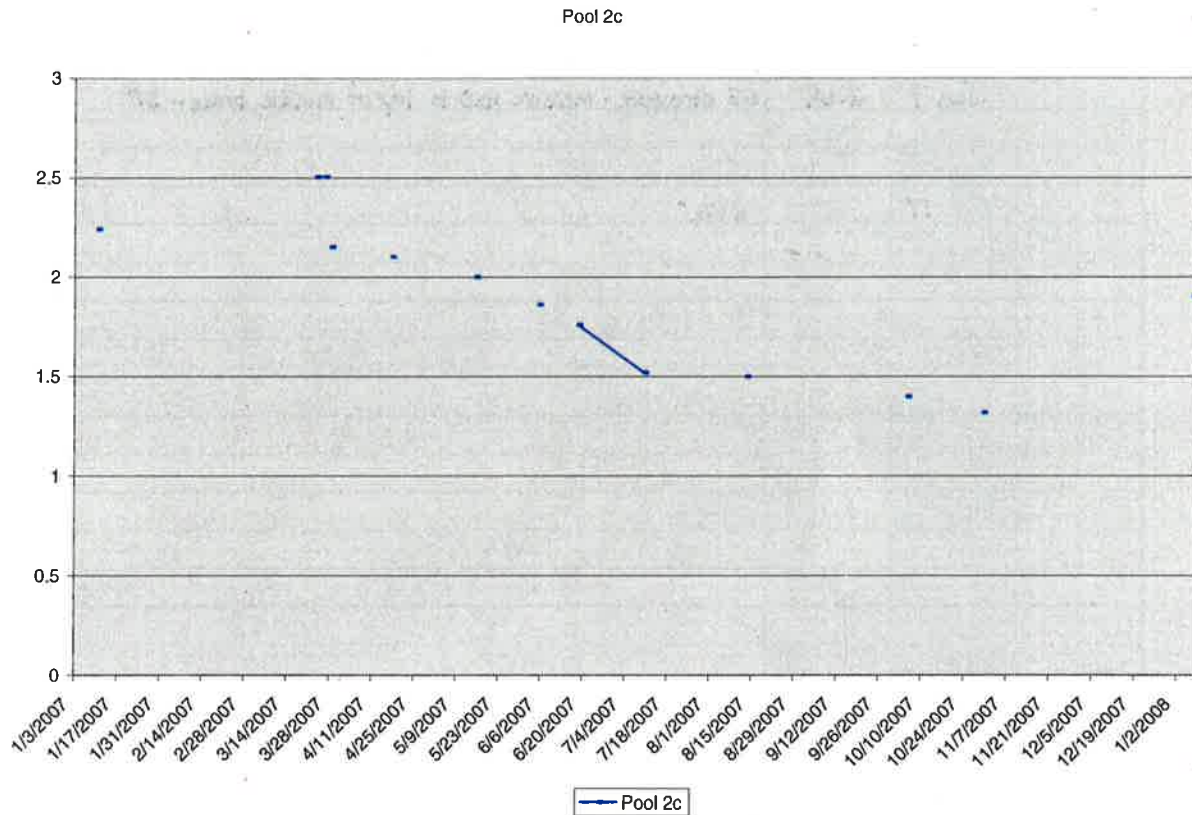
est = estimate based on tape measure readings

Water level guide	2008 Date	Actual Water level	Notes
	Jan 7	2.64	SE structure - measure H ₂ O to top of middle brace - 31"
	15	2.82	
	Feb 6	3.10	SE struct - 26"
	Mar. 17	est 3.48	21 1/2"
	Apr.		
	May 12	3.48	21 1/2"
> 3.3	June 6	3.30	
	16		23 1/4"
	27	3.38	
> 3.3	July 9	3.86	Opened SE gate
	11	3.66	
	14	3.5	
	23	3.34	
> 3.3	Aug.		
	11	3.06	
	18	2.88	Turned Pump on 3pm @ 2.90
> 3.3	Sept. 1	2.92	Pump not running in A.M. → Pump OFF
	23	2.90	
> 3.3	Oct. 23	2.78	

Unit: Pool 2C

Acres: 82

2007 Activity: High water was let off through the SE gate in January and March. Good results from the aerial spraying of purple loosestrife.



Unit Goals: Attract a variety of waterfowl, shorebirds, water birds, and wetland animals to provide opportunities for wildlife viewing. To enhance water level management capabilities, a project to ditch MS 8A and install individual stop log structures to Pool 2A, 2B, and 2C is proposed.

Objectives: Manage for hemimarsh conditions.

Strategies: Maintain higher water levels in the spring to stress surviving loosestrife plants (approximately 2.0). Allow for evapotranspiration.

Management Strategy Constraints: Currently there is no independent water control for this unit, unless a portable pump is used. This can be costly and needs frequent monitoring/maintenance. Refuge budget and project priority will determine water management activities.

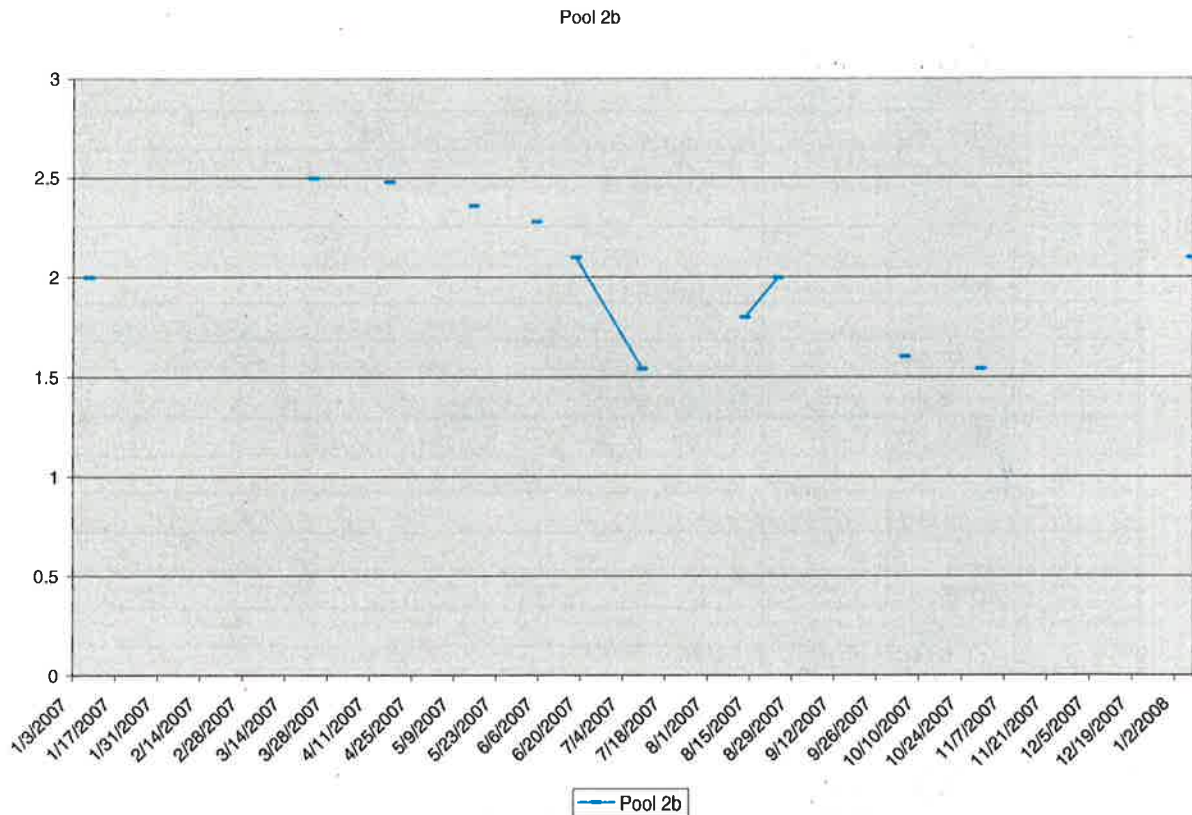
Unit: Pool 2c

Water level guide	2008 Date	Actual Water level	Notes
	Jan 7	1.90	15 th 2.04
	Feb 6	2.36	
2.0	Mar. 24	2.90	ice in structure - can't open yet
	Apr. 1	3.05	Open 1130
	2		2.82 at 9am April 3rd 2.68 @ 2pm closed
	9 th	2.68	Opened 6" 9:00 2.58 closed 300 4/11
	14	2.60	Opened 8" - ditch too high 15 - 2.50 16 2.50
	May 18	2.38	4/21 - 2.30 4/24 - 2.28
	4/29	2.00	Closed 4/30 - 2.04
	5/20	2.08	
	June 6	1.94	
	16	1.98	
	27	2.0	
	July 8	2.54	
	23	2.40	
	24	2.4	Same as the day before
	Aug.		
	11	2.10	
	18	1.96	
	Sept. 23	1.76	Herms + 2 gates 4 Wagon - Opened 4" (letting H ₂ O out)
	24	1.66	9/25 - 1.60 closed
	Oct. 6	1.52	
	23	1.48	

Unit: Pool 2B

Acres: 95

2007 Activity: No active management.



Unit Goals: Attract a variety of waterfowl, shorebirds, water birds, and wetland animals to provide opportunities for wildlife viewing.

Objectives: Perennial smartweed is the dominant emergent vegetation in the unit, try to encourage more variety of vegetation. Provide areas of deep submergent wetlands for fish and invertebrates, as well as shallow emergent wetlands for wading birds and waterfowl.

Strategies: Obtain an average depth of 12-14 inches (guage reading of 2.0). This will provide wading birds foraging habitat and discourage loosestrife. Evapotranspiration through July and August will decrease levels 6-8 inches providing shallow wetlands for fall dabbling ducks and possibly some larger shorebirds.

Management Strategy Constraints: Currently there is no independent water control for this unit, unless a portable pump is used. This can be costly and needs frequent monitoring/maintenance. Refuge budget and project priority will determine water management activities. In addition, the spring draw down in 2006 could have allowed for puple loosestrife to germinates. The unit will need to be monitored for exotics.

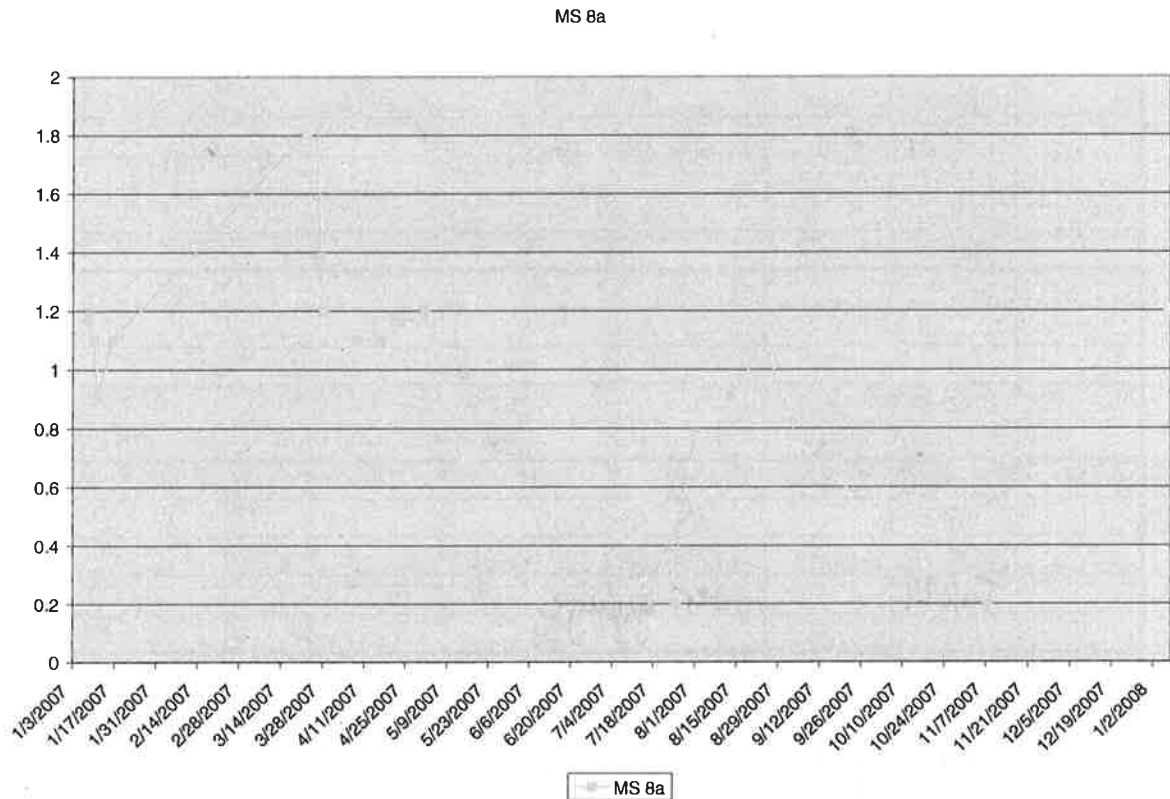
Unit: Pool 2b

Water level guide	2008 Date	Actual Water level	Notes
	Jan 7	2.10	15" 2.40
	Feb 4	2.58	
2.3-2.5	Mar. 19	3.06	
	? Apr. 2	3.24	
	14	3.3	(nearly over gauge)
	May 20	3.14	
	June 6	3.02	
	16	3.0	
	27	3.06	
	July 9	> 3.3	over gauge (6 holes)
	July 24		over gauge
	Aug.		
	11	3.18	
	18	2.96	
	Sept. 23	2.72	
	Oct.		
1.5	23	2.60	

Unit: Pool 2A

Acres: 65

2007 Activity: This unit was drawn down the end of March with the gator pump at the SW corner of the unit. There were some mechanical issues, but pumping was completed by mid May when we were unable to draw the unit down any more with the pump. Evaporation continued to provide mudflats. Good response of nodding smartweed, millet, and sedges. Water was added from 8a and a significant rain event late July. Additional reflooding began in Late October via 8a, although low lake levels prevented more water from being added to the unit.



Unit Goals: Control exotic invasive plants (Eurasian watermilfoil) and willows encroaching on high ground. Attract a variety of waterfowl, water birds, wetland animals and invertebrates to provide opportunities for wildlife viewing. To enhance water level management capabilities, a project to ditch MS 8A and install individual stop log structures to Pool 2A, 2B, and 2C is proposed.

Objectives:

Strategies:

Management Strategy Constraints:

Unit: Pool 2a

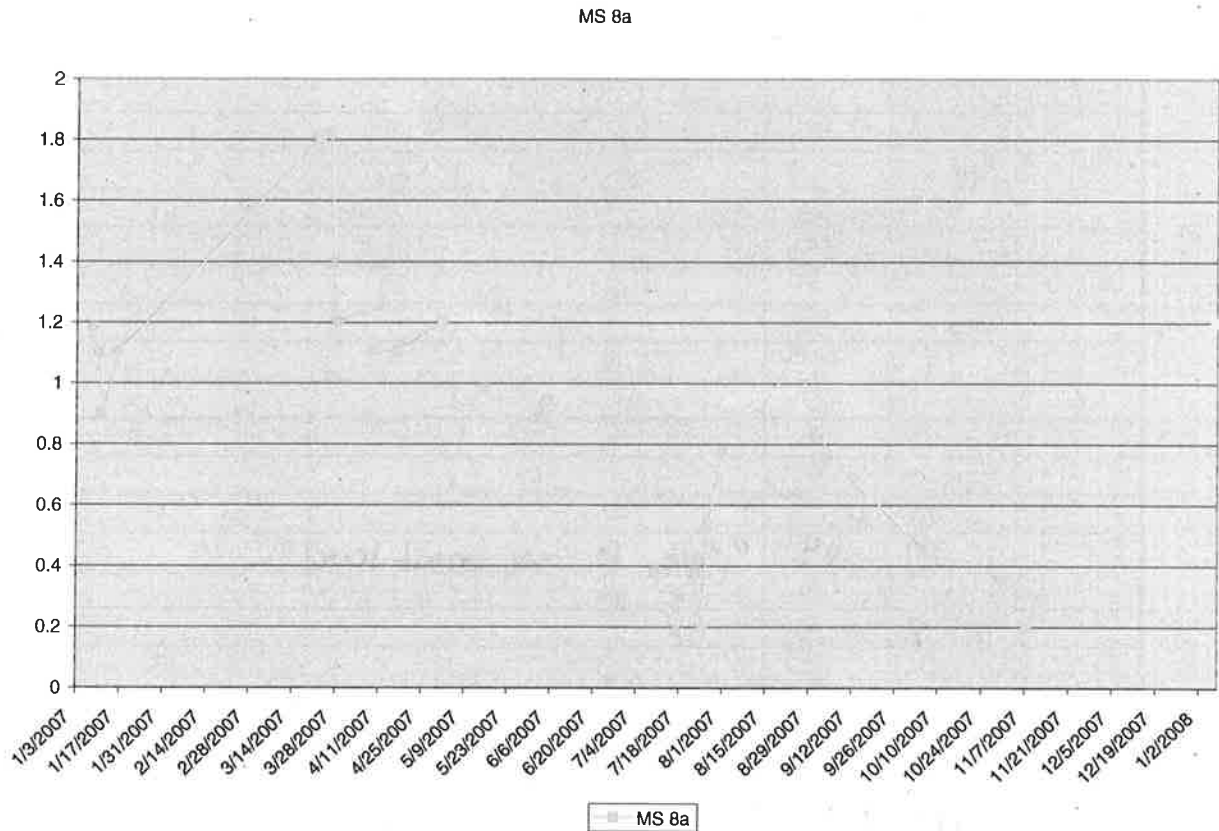
Majority of mudflats exposed at 7.66

Water level guide	2008 Date	Actual Water level	Notes
	Jan 7	8.80	15 ^m 9.0
	Feb 6	9.38	
9.0-9.3	Mar. 19	9.94	
	Apr. 1	10.10	
	9 th	10.14	
	14	10.26	
	May 20	10.08	
	June 6	9.94	
	16	10.0	
	27	10.04	"talk to Sara about level"
	July 8	10.56	
	Aug.		
	11	11.3	3
	18	10.00	sm
	Sept. 23	9.80	sm
	Oct. 6	9.70	
8.0-8.2	23	9.68	

Unit: MSU 8A

Acres: 56

2007 Activity: High water was let out in January and March. The unit came down through early summer and the pump was turned on in late July to add water to 2a and 8a. The fall draw down planned was canceled do to weather and lack of water in other units. In late October the pump was turned back on in attempt to reflood 2a and add water to 8a. Low lake levels prevented 24hr pumping, and pumping made slow and little progress. The screw gates leak in the pump structure, so all gates should be kept close.



Unit Goal: Provide resting and foraging habitat for migratory birds.

Objectives: Encourage marsh vegetation and invertebrates. Provide fall shorebird habitat.

Strategies: Manage water levels for full pool in the spring, with a gradual decrease throughout the summer. Dewater in late July for fall shorebirds. Possibly add water in September for dabbling ducks. Raise catwalk during drawdown and possibly inspect pump.

Management Strategy Constraints:

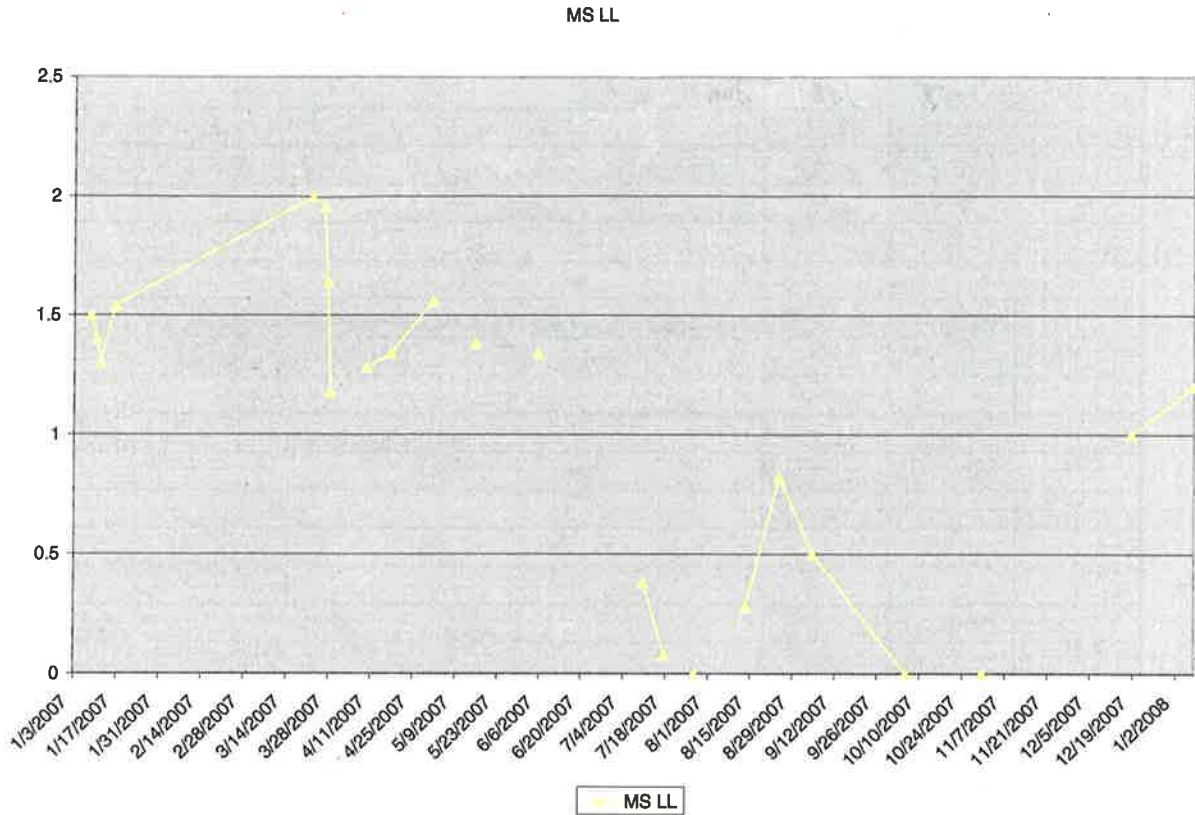
Unit: MS 8a

Water level guide	2008 Date	Actual Water level	Notes
	Jan 7	1.20	Jan 15-1.36
	Feb 6	1.70	
	Mar. 19	2.30	24-2.30 opened to C.C. 25-2.1 8:00am
	24	2.00	27-1.80 closed 5:30pm
	Apr. 1	1.92	open 8 th Apr. 12nd 2pm, closed 3rd 2pm ~1.76
1.5	9 th	1.76	Opened 4" 9:00 P 9/10-1.58 closed
	14	1.68	Opened 3" 9am
	15	1.60	9/10 1.56 9/16 1.52 Spn closed 4/30-1.40
	May 20	1.38	
	June 6	1.22	
	16	1.20	
	27	1.26	
	July 9	1.80	
	Aug.		
	11	1.3	
	18	1.14	
	Sept. 23	0.86	
	Oct. 24	0.68	

Unit: MSU LL

Acres: 27

2007 Activity: High water was let off in the spring and during significant rain events.



Unit Goal: Maintain unique refuge habitat and native plants. Provide foraging and nesting habitat for migratory birds.

Objectives: Maintain marsh conditions.

Strategies: Allow full pool in spring and evapotranspiration throughout the season.

Management Strategy Constraints: Unit floods easily from rains, resulting in dramatic water level changes. Approximately 1.3 unit floods north woods.

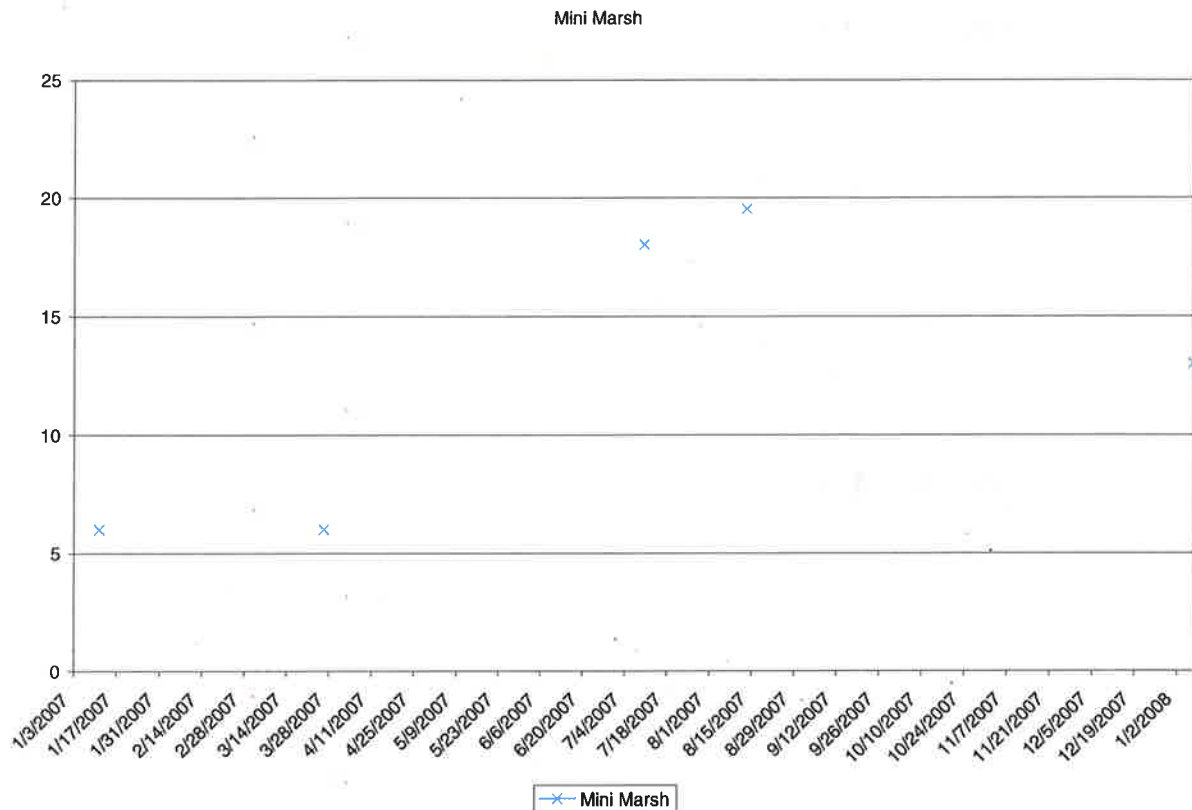
Unit: **MS LL**
Possibly, 1.30 is full pool. Higher water backs up into north woods.

Possibly, 1.30 is full pool. Higher water backs up into north woods.

[illegible]

Unit: Mini Marsh**Acres: 30**

2007 Activity: Minimarsh is used as a holding tank to pump up blind 93 in the fall. During this time water levels fluctuate highly until pumping is finished.



Unit Goal: Provide resting and foraging habitat for migratory birds.

Objectives: Maintain as hemi marsh.

Strategies: Possibly conduct spring burn.

Maintain flooded optimum pool, with maximum water levels at 10" and minimum at 8"

Management Strategy Constraints:

Unit: Mini Marsh

Measure from waters surface to top of splitter box. If water in unit gets much higher than half way up the side of the discharge pipe, water leaks through splitter box to Crane Creek. Needs new flap gate.

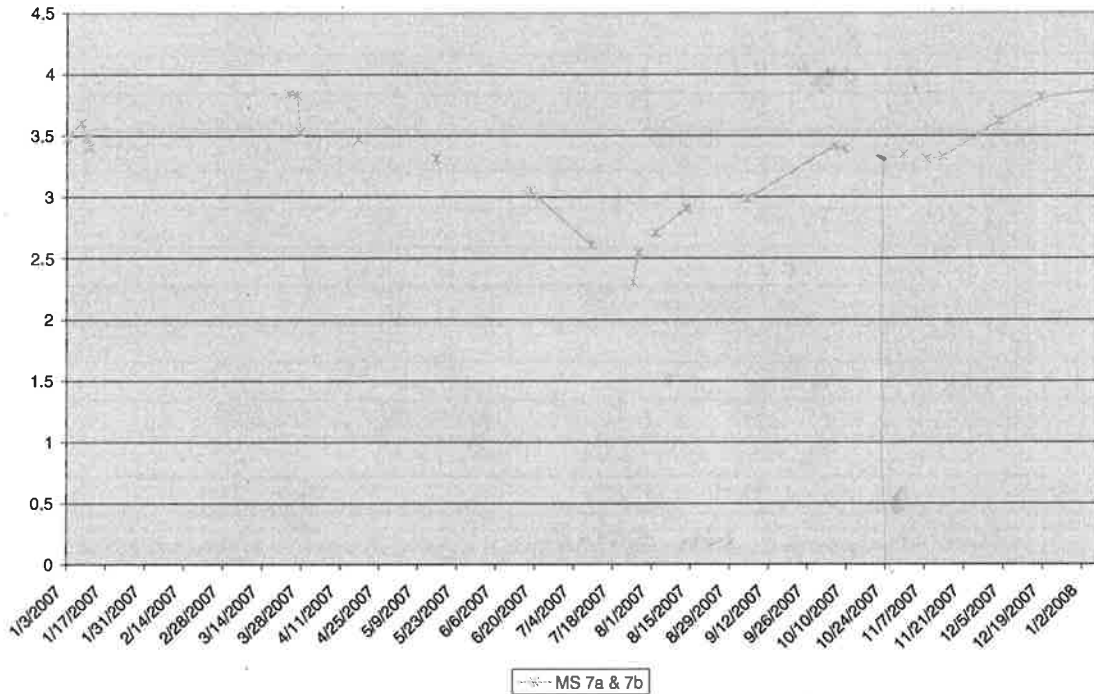
Water level guide	2008 Date	Actual Water level	Notes
	Jan 7	13"	
	Feb 16	8 1/2"	
	Mar. 17	8 1/2"	
10"			
	Apr.		
	May 13	7 1/2"	
	June 21		No stick
	July		
	Aug.		
	Sept. 4	16"	Pump on for 9/5 - Pump off - dith out of H ₂ O, sw winds
	Oct.		
	Nov 13	14"	

Unit: MSU 7A & 7B

Acres: 94

2007 Activity: High water was let off in January and March. Good spring bird use by all water birds. Water was added to unit late July and again throughout the fall. The pump was replaced in September. The unit was broadcast sprayed for invasives. Significant loosestrife and rush problems.

MS 7a & 7b



Unit Goal: Provide migratory bird foraging and resting habitat. In addition the transitional areas on 7B will allow for easily accessible upland habitat for nesting as well as provide a gradient of water levels.

Objectives: Manage water levels against invasives.

Strategies: Maintain full pool by pumping throughout year as needed and treat invasives.

Management Strategy Constraints:

Unit: MS 7a & 7b

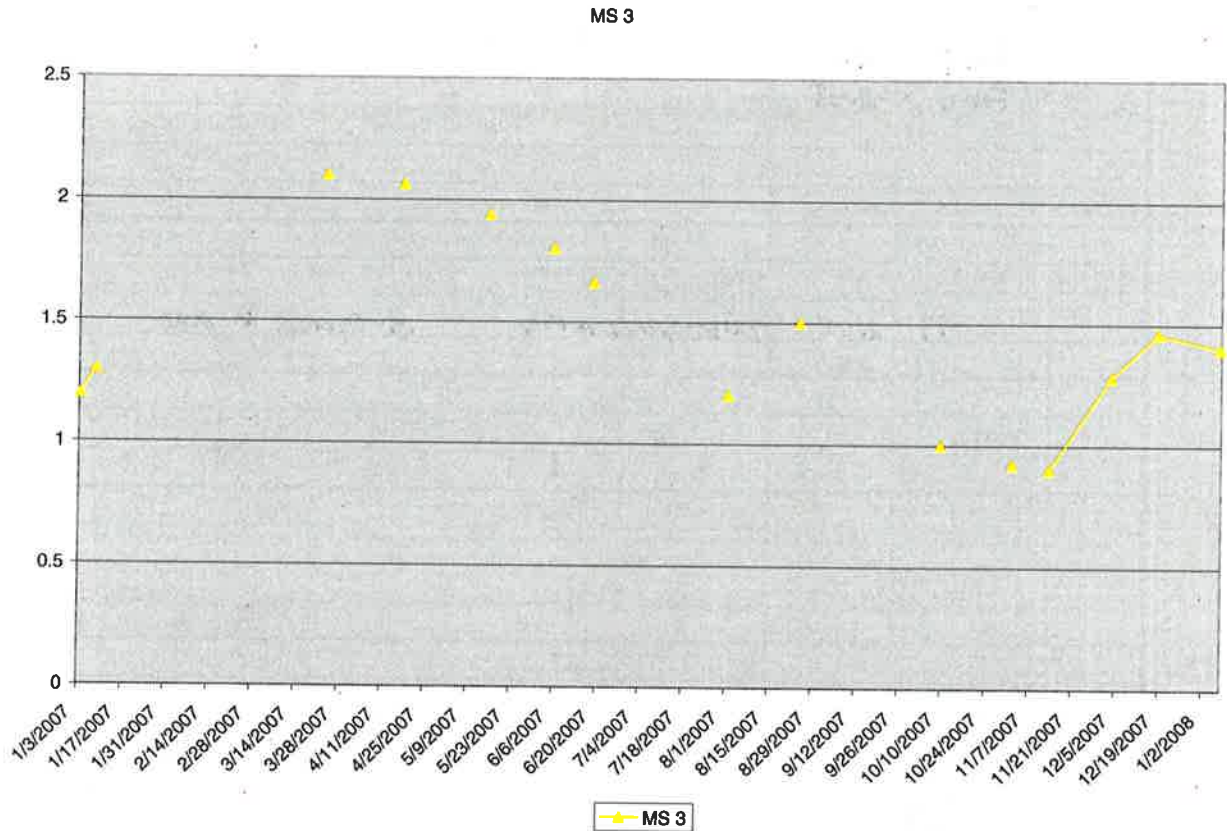
Water level guide	2008 Date	Actual Water level	Notes
	Jan 8	3.88	Opened-AM, closed-PM 3.78 1/9 - 3.90. opened-AM, closed PM 3.80
	Feb 4	3.90	Gate leaking thru pump structure, so closed all gates (ditch was open),
	6	3.98	Muskrat hole thru dike by Rebecca's. H2O leaking out
			3/4 - letting H2O out 12pm → closed 4pm 4.0
3.3-3.5	Mar. 3	4.10	Lots of Ducks flying around refuge
	13	4.29	
	17	4.26	Open 12:30pm 6" - Closed due to ice. 18 th - Opened 3:30pm @ 6"
	19	4.12	21-3.66 Closed 8:00am
	Apr. 1	3.86	Open 6" at 10am
	2	3.58	9am closed
	8	3.62	3.68 - 4/14
	30	3.50	
	May 12	3.50	
	June 6	3.30	
	16	3.26	
	27	3.30	
	July 9	3.96	
	July 28	3.8	
	Aug.		
	11	3.50	
	19	3.30	Pump on 20 - 3.28 Pump on (was turned on 8/19, but not set properly)
	28	3.50	Pump OFF
	Sept. 1	3.50	
	22	3.40	Pump ON 9/25 - OFF (? 3.56?)
	Oct. 8	3.56	
	14	3.52	
	21	3.50	22 - opened gate 5" - close in pm
	25	3.42	Opened 2" 2pm. 10/27 - 3.18, 1:45pm 10/28 - 3.04 Closed 3:30
	Dec 12	3.42	

New level goal for more ideal conditions for 72 blind.

Unit: MSU 3

Acres: 225

2007 Activity: No active management. The water gauge leans and is not comparable to 2006 levels.



Unit Goal: Provide a nesting and feeding area for migratory birds as well as brood habitat.

Objectives: Maintain as hemi marsh. Provide emergent and submergent marsh habitat for waterfowl, swans, and rails.

Strategies: Maintain flooded optimum pool.

Management Strategy Constraints:

Unit: MS 3

(when filling, open 24" gates all the way, 36" gate on ditch open only 1')

Measure from H₂O surface to top of brace (highest 20'12")

33" use to = 1.0 on the gauge (no longer true)

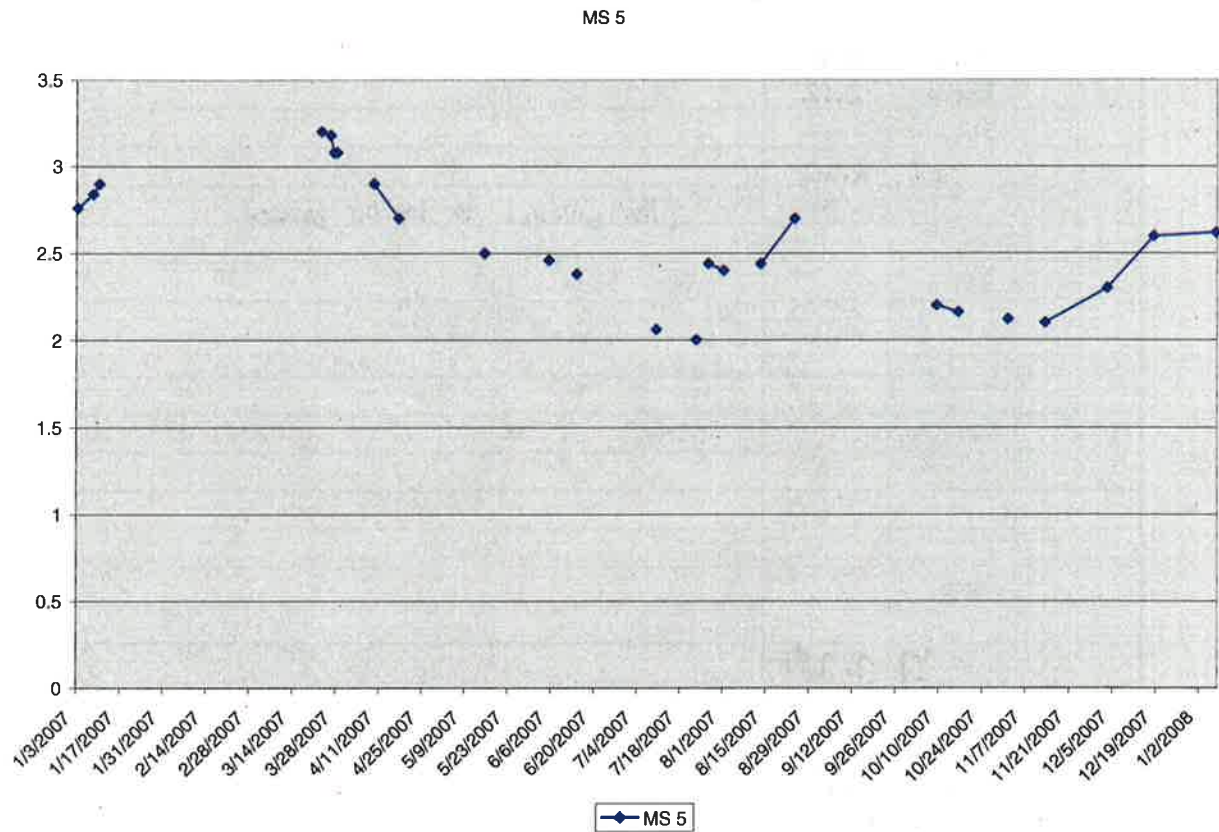
Water level guide	2008 Date	Actual Water level	Notes
	Jan 7	1.40	
	Feb 6	2.12	
	Mar. 3	2.36	
	17	2.60	
	19	2.70	24" (H ₂ O surface to top of brace)
	Apr.		3A8 swam yellow
	14	2.94	2 1/2" - Opened 8" 8am
	16		Closed
33"	May 12	2.48	27"
	June 6	2.22	
	16		31"
	27	2.16	
40"	July 9	2.64	25"
	23	2.5	
	Aug.		
	11	2.1	
33"	Sept. 8	1.54	38 1/4"
	24	1.56	38"
	Oct. 8	1.52	39 1/4" - lots of ducks on S side - wigeon tail - 2000
	23	1.36	40"
	11/5		Too low. Muskrats are getting concentrated to deeper areas & killing veg. Interior areas dryer and get less use.
	11/19	1.6	37 1/2"

(based on 2005 levels.)

Unit: MSU 5

Acres: 256

2007 Activity: High water was taken off in March through the ms ditch. Water was added via the MS pump in late July.



Unit Goal: Provide a resting and feeding area for migratory birds.

Objectives: Repair west dike.

Strategies: Draw down water level depending on timing of construction and possible wildlife benefits. Treat and monitor invasives. Avoid early draw down if possible

Management Strategy Constraints:

Unit: MS 5

Water level guide	2008 Date	Actual Water level	Notes
	Jan 7	2.62	
	Feb 4	2.82	2/6 → 3.06
	Mar. 3	3.20	
	18	over gauge	"Partial Draw down for const" 12:30 pm 5" ↓
	21	3.16	24- 3.00 25- 2.90 27- 2.76 Closed 5:30 pm
2.7			
	Apr. 1	2.89	
	9	2.86	
	14	2.90	
	30	2.70	
	May 12	2.72	
	13		
	June 6	2.52	
	16	2.50	
	27	2.60	
	July 8	2.90	
	9	3.0	Begin d.d. for construction - Opened 5" ↓
	11	2.90	
2.3-2.5	14	2.5	15- 2.4 19- 1.98 21- 1.78 closed SW gate. Open N gate 12"
	25	1.28	28- 0.90 29- Closed
	Aug. 11	1.70	Couldn't get due to Construction
	Sept. 8	0.20	? Dirty
	17	0.32	? 23- Putting extra ditch H ₂ O into ms 5
	Oct. 6	0.34	
	8	0.32	Opening gate on N side for more mudflats
	9	0.2	Closed gate
	14	0.18	
	23	"	Dirty 11/4 - Dirty 0.1?
	Nov 9	0.1?	Open to MS ditch. MS Pump on @ 1:30 off @ 4 - Pump on 11/2
	Nov 13	0.7	Pump off 10:30 am

Nov 19 0.80

Nov 20 - 1.0

Nov 24 - 1.3 Turned off MS Pump. low lake levels + ice!

Dec 12 - 1.46

SA9-5 supports
7/9

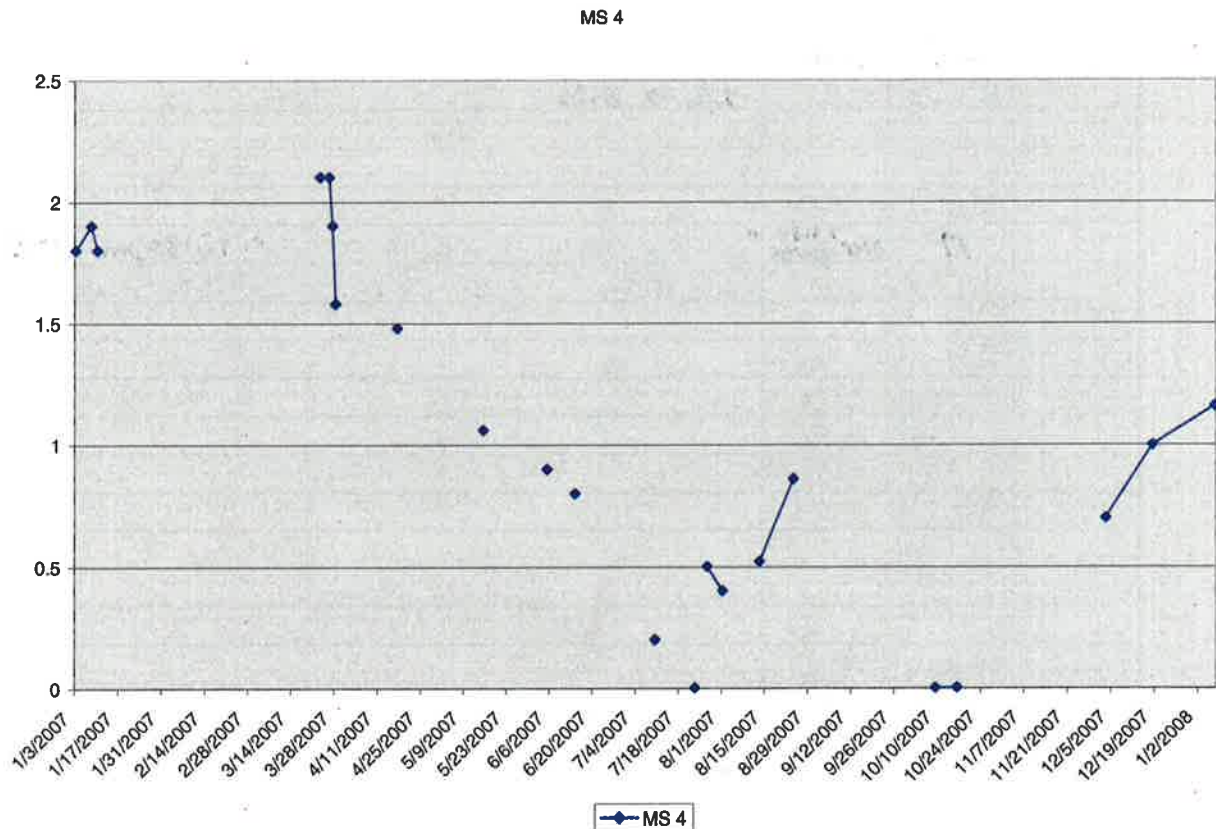
N gate 12"

ms 6 draining into unit in AM, Pump on in PM.

Unit: MS4

Acres: 112

2007 Activity: High water was taken off in March through the MS ditch. Water was added late July via the MS pump.



Unit Goal: Provide a nesting and feeding area for migratory birds as well as brood habitat.

Objectives: Repair east dike/road.

Strategies: Const. starts. April

Management Strategy Constraints:

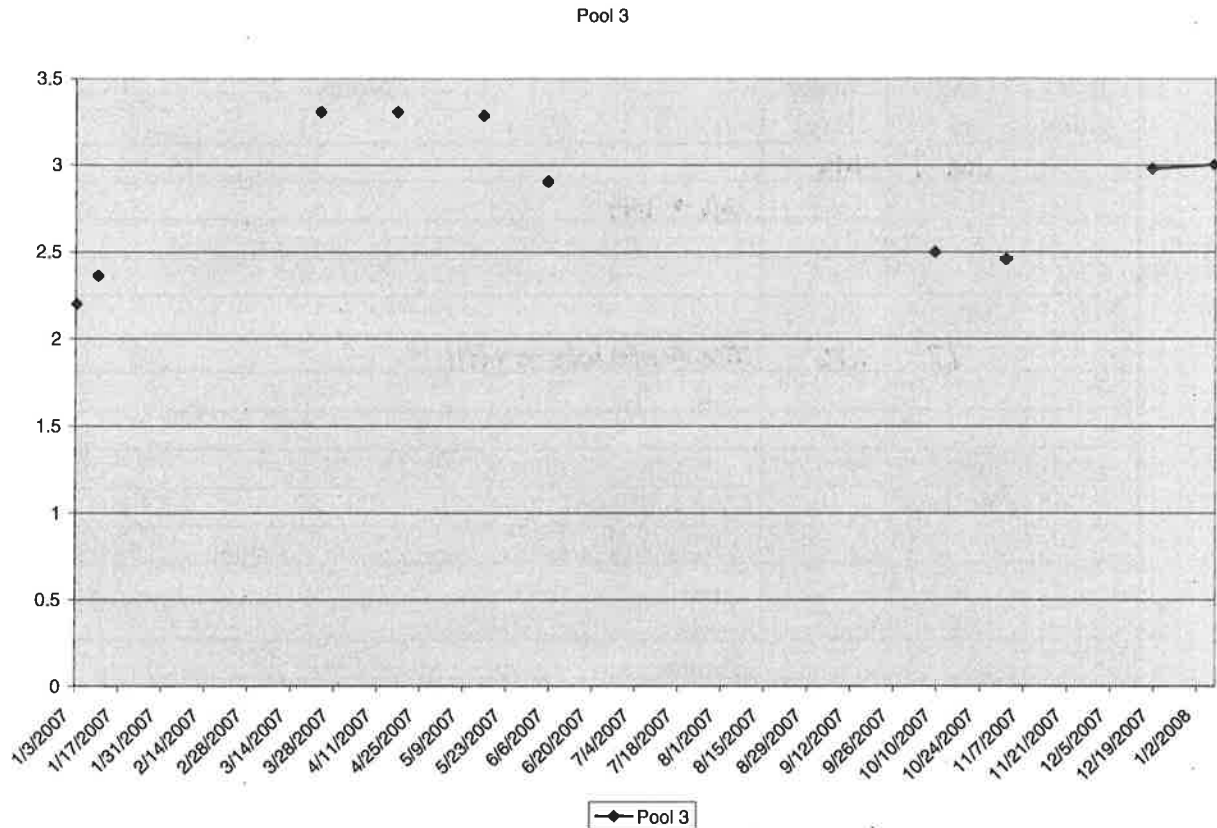
Unit: MS 4

Water level guide	2008 Date	Actual Water level	Notes
	Jan 7	1.16	
	Feb 4	1.22	2/6 → 1.44
2.0	Mar. 3	1.60	
	13	1.76	Ice @ structure = fish structure
	Apr. 1	1.98	Swan yellow 8A9 (pair)
	9	2.00	14-20
	30	0.78	- Discovered someone opened Veler Rd gate & drained. Threw wheel in wetland.
	May 8	0.70	opened 6-7" 7:30am
	9		Closed
	12	0.54	Opened 13-0 water in ditch, but below gauge. closed.
	June 6	—	below gauge, water in ditch, NE corner, East side visible
	16	—	
	27	.14	
	July 8	0.60	
	9	0.78	Opened to let rain water out. Plan - Dry out & disk R. Canary
	21		MS Pump on - d.c. 4 FVZ.
	23	0	
	Aug. 4		Disked MS & R. Canary & some Flowering Rush
	11	0	
	Sept. 6	0	Pumping Up. Construction on 4/5 dike done.
	13	1.6	OFF - Great use of Millet by ducks & geese. 2,000?
	24	1.5	
	Oct. 6	1.24	8- 1.22 - Not many birds - expose mudflats in diked area on W side.
			Pumping Up.
	10/9	1.40	Pump off, ditch equalizing 4pm
	10/14	1.36	
	10/23	1.36	11/6- 1.34
	11/19	1.40	
	12/12	1.36	

Unit: Pool 3

Acres: 240

2007 Activity: No active management.



Unit Goals: The primary objective of this unit is to provide food resources and resting cover for migratory waterfowl, waterbirds, nesting Bald Eagles and other wetland animals. In addition water levels are managed to encourage native wetland plants and discourage exotic invasive species.

Objectives: Manage for hemi marsh conditions.

Strategies: Conduct winter burn to remove leaf litter and make areas more accessible to migratory birds. A burn will also make spraying invasives more effective by increasing spray contact. Maintain high water levels so that the west end has deeper water. Realize that evapotranspiration could decrease spring water levels one foot by October.

Management Strategy Constraints:

Unit: Pool 3

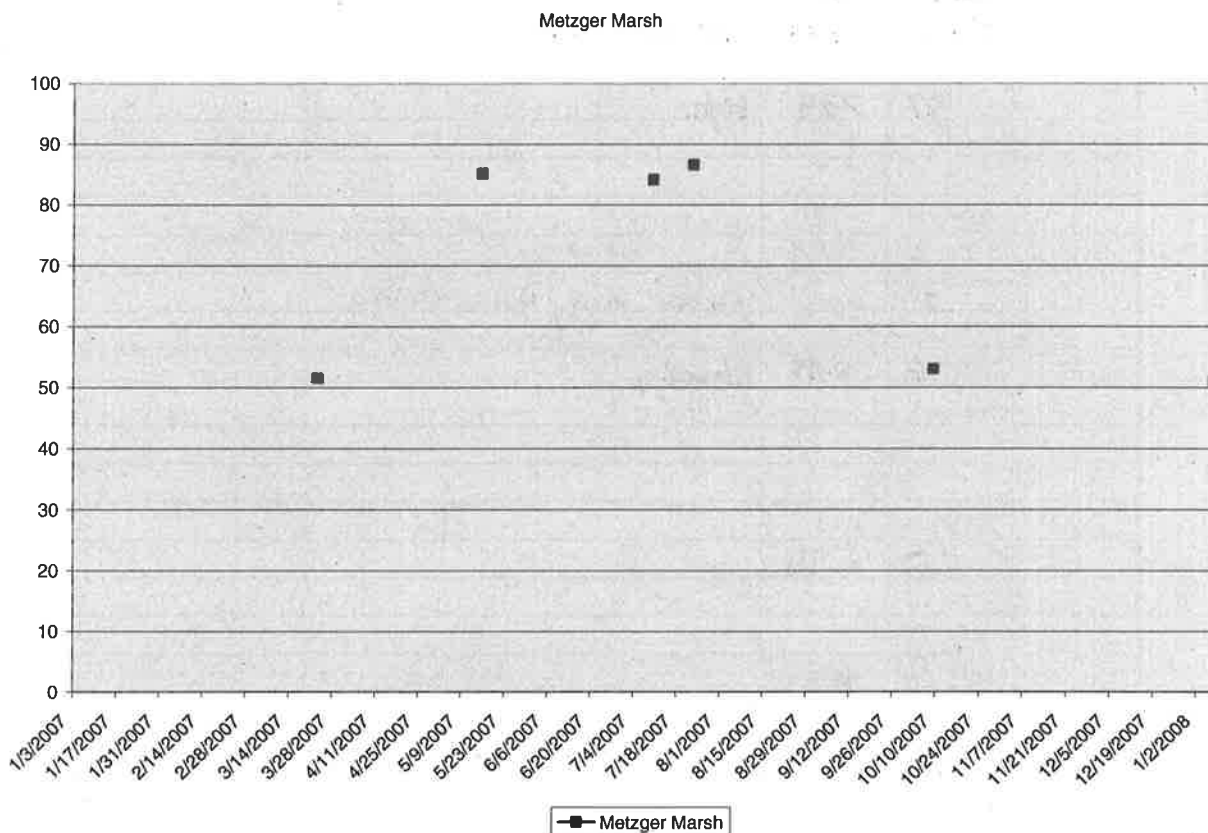
Water level guide	2008 Date	Actual Water level	Notes
	Jan 7	3.00	
	Feb 6	3.4?	Over gauge x .1
2.4	Mar. 3	>3.4	
	27	>3.4	High.
	Apr. 2	3.4	Good bird use on west end.
	14	>3.4	Opened 3" 8:40am
	30		Still over gauge. Opened 4" total
3.3?	May 6	2.98	Closed.
	12	3.0	
	June 6	2.80	
	27	2.76	
	July 9	3.2	
	Aug.		
	11	2.7	
	Sept.		
	Oct. 8	2.26	
	10/23	2.18	
	Dec 12	2.54	

Unit: Metzger Marsh

Acres:

2007 Activity: One east gate in the fish passage structure was opened ½ way in Late March. The unit was then pumped down late April and was complete by mid May. Great vegetation response. The unit was reflooded in September? Management was conducted by Magee. Check their records for dates and activities.

For chart, remember higher water level numbers, mean lower water levels. Water is measured with a tape measure from waters surface to top of east lower platform.



Unit Goal:

Objectives:

Strategies:

Management Strategy Constraints:

Unit: Metzger Marsh

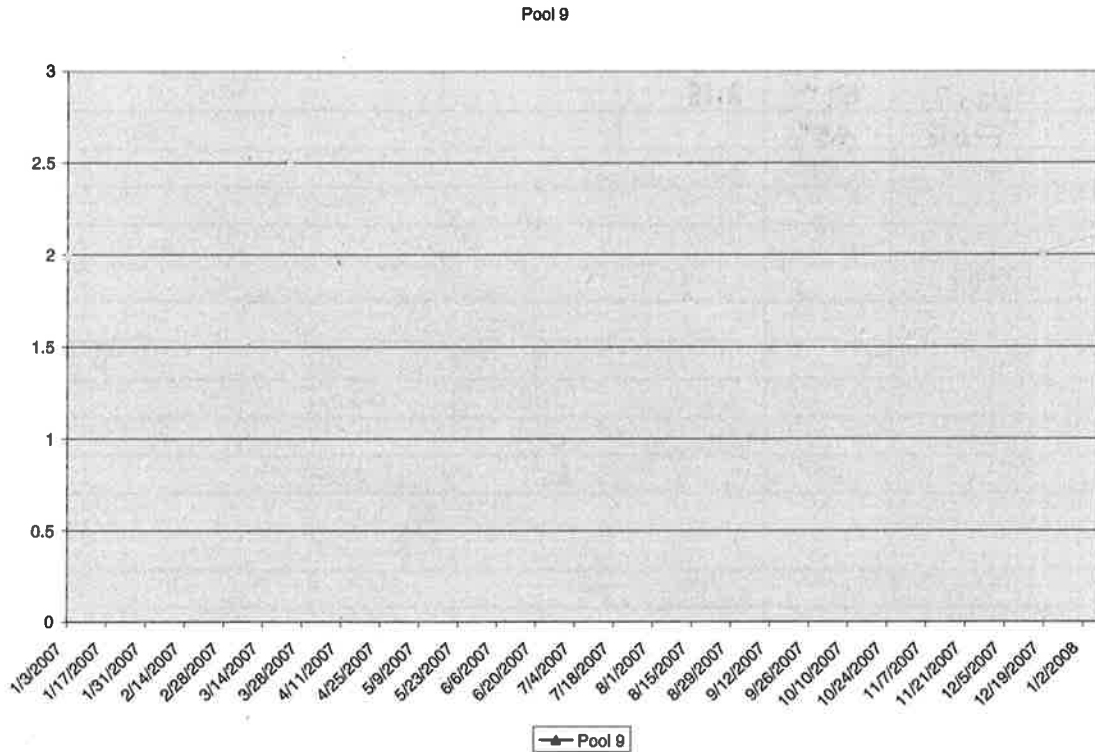
Measure from waters surface to top of lower platform on unit side. Maintain full pool for control of invasives.

[illegible]

Unit: Pool 9 East

Acres: 77

2007 Activity: No active management



Unit Goals Provide resting and foraging habitat for migratory birds.

Objectives: Manage for hemi marsh conditions.

Strategies: Maintain full pool.

Management Strategy Constraints:

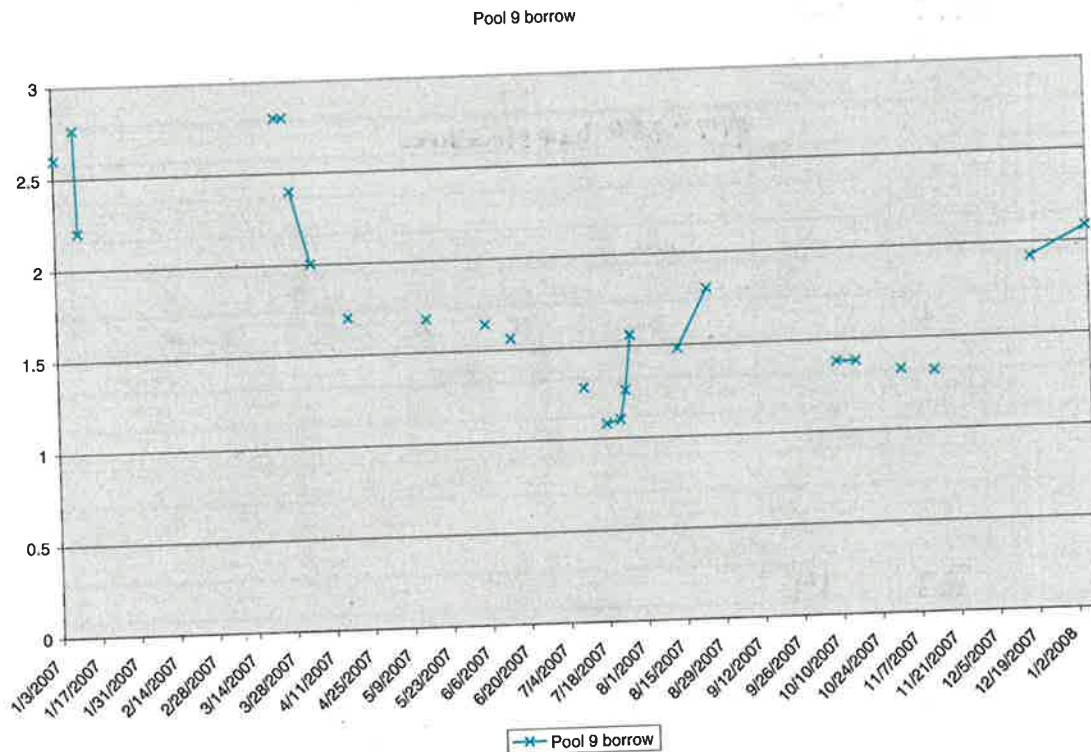
Unit: **Pool 9 east** - When unit is too high, water in unit connects to ditch on SW end and runs down ditch & floods road on south middle of unit.

Water level guide	2008 Date	Actual Water level	Notes
	Jan 7	2.10	
	Feb 6	2.52	
2.5	Mar. 3	2.64	
	13 13	2.80	9/17-2.80 low structure
	26	2.90	
	Apr. 1	3.00	open 6" at 10
	2	2.54	930, closed 230, 2.46
	9	2.50	14-2.54 16 2.22 closed 11pm
	May 8	1.98	
	12	2.00	
	June 6	1.80	
	27	1.74	
	July 9	2.20	
	19	2.10	
	Aug. 11		
	Sept. 8	1.40	
	24	1.46	
	Oct. 23	1.32	
	Dec 12	1.64	

Unit: Pool 9 borrow area

Acres: 38

2007 Activity: High water was taken out in the January and March. Water was added in July.



Unit Goals: Provide habitat for waterfowl, wading birds, and shorebirds. Provide public use waterfowl hunting opportunities.

Objectives: Obtain 19 acres of deep to shallow submergent vegetation and 19 acres of deep to shallow emergent vegetation. Control Eurasian watermilfoil. Maintain 3 water blinds for waterfowl hunting season.

Strategies: a minimum of 1.3 needed to provide adequate hunting access in fall.

Management Strategy Constraints:

Unit: Pool 9 borrow area

Water level guide	2008 Date	Actual Water level	Notes
	Jan 7	2.08	
	Feb 6	2.74	
	Mar. 3	3.10	1,000 Ducks + Geese
	Apr. 1	over gauge	Open 6" 11am
	2	" "	930 April 3rd 3.32 closed at 230
	9		8:15 opened 6" 3.08 closed 215 4/11
	14	3.10	Opened 8am 6" 2:06 4/16 11am 18-2.30
2.0	May 12	2.08	
	June 6	1.92	
	27	1.86	
	July 9	2.52	
		1	
	Aug.		
	11	2.10	
1.3-1.8	Sept. 8	1.68	
	24	1.72	Opened to ditch for d.d. 6" & opened
	25	1.60	Closed
	Oct. 8	1.54	Opened 9:30 Am
1.30	14	1.38	
	22	1.38	Opened 1pm 6" 23-1.30 lots of thick grass submerged
	11/6	1.30	@ blind 12
	11/14	1.50	
	12/12	1.66	

closed 4/22
2.18 30-2.08

Unit: FU 6

Full pool 1.8

If pumping FU6 up through MS ditch, start sooner and only run pump in the day. The.
In 2006 (wet year) only took 1 week to fill.

Water level guide	2008 Date	Actual Water level	Notes
	Jan. 7	→	Take water off to chop corn.
	Mar. 17	0.9	Rutting H ₂ O From MS ₆ into FV ₆ 12:30pm
	19	1.18	Closed to MS ₆
	Apr. 8	1.40	
	14	1.40	
	May 6	1.30	
	12	1.28	
	June 6	1.06	When H ₂ O is down-call Gary Horton about traps lost.
	16	1.0	
	July 9	1.58	Opened 5" /pm
	11	1.32	Closed
	Aug.		
	Sept.		
	21	→	Begin flooding hunt unit
	Oct. 14	1.70	
1.7-1.8	Nov 6	1.70	
	Dec 12	1.90	

Unit: FU 2

Construction planned for 2008

Water level guide	2008 Date	Actual Water level	Notes
	Jan 7	→	Take water off to chop corn.
	Mar.		
	Apr.		
	May		
	June		
	July		
	Aug.		
	Sept.		
	Oct.		
	Nov.		
			Begin flooding hunt unit

Unit: **Blind 93**

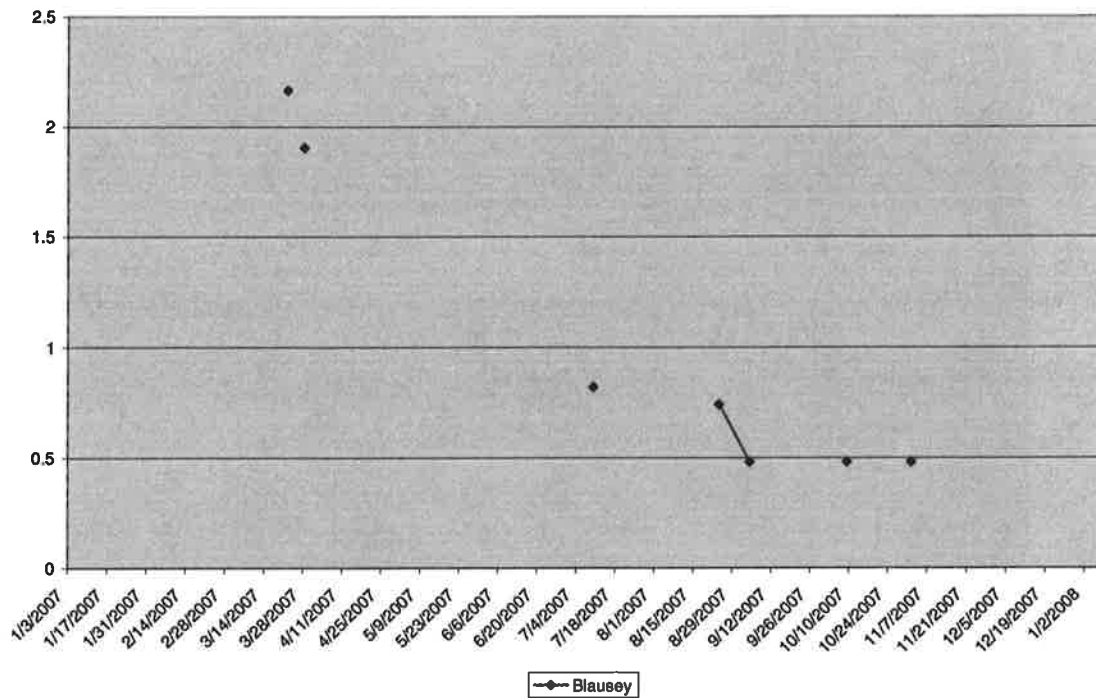
From waters surface to middle brace on screw gate

Water level guide	2008 Date	Actual Water level	Notes
	Feb 6	45 ³ / ₄ "	Over boards. Full Pool 4
	Mar.		
	Apr. 14-15		structure to prairie opened to let high H ₂ O out. dropped 5" ~ 2pm-8am.
	May 12	50 ¹ / ₂ "	
	June 16	53 ¹ / ₂ "	
	July 2	42"	Full Pool. (bottom of road brace)
	Aug. 18		Mudflats
	Sept. 22		Pumping 11p
	24	51"	
	Oct. 14		
	Nov 6	51"	

Schneider

2007 Activity: 1.5 water levels saturated neighboring land owner to the west. Land owner was given permission to farm equal acreage on Schneider property. Landowner enrolling land in government wetland program.

Blausey



Unit: Blausey - Check boards!!

[illegible]

Navarre

2007 Activity: Pool 2 high water was pumped down by plant employees in early April.
Notes: Pool 1 also has pumping capabilities. The lock combo is 7556.

2007 Levels:

	May 22
Pool 1	0.78
Pool 2	2.45
Pool 3	0.75

November 6

?
1.62
0.18

- (veg looks good)
- (lots of ducks-2000-2500, good veg)
- 3000 – 3500 ducks. Beaver action on south side. Muskrats thick in NE corner and SW side, but not too bad. Veg recovering.

[illegible]

double flap btwn 3+2

Can't get H_2O into PZ

P3 has double flaps into Lake

P3 has some little watershed from north and west end.

P3 has pump that pumps out.

Diefenthaler:

2007 Activity: High water was pumped off in spring. Pump fuse was replaced in July, and mistakenly turned to manual. The unit was dewatered. Rains reflooded the unit by fall.

2/6 - Fuse blown & replaced. Unit Full Pool

Dried up over summer during drought (Aug?) except for main channel. Reflooded in November

Kontz:

2007 Activity: Unit is currently open to lake levels.

Hairy willow herb found in transition areas.
Wetland remained flood throughout entire season (Spring-Fall)

Helle:

2007 Activity: No active management

11/4 - low water

Gaeth-Kurdy:

2007 Activity:

Private land owners replaced culvert w/ bigger size to handle flash flood conditions better. Doug issued a special use permit. Culvert drains private Ag lands.